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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/588,345	06/07/2000	Masaaki Konno	Q59303	8129

7590 10/22/2003

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EXAMINER

GIBBS, HEATHER D

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 10/22/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/588,345

Applicant(s)

KONNO, MASAAKI

Examiner

Heather D Gibbs

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☒ Claim(s) 3,5-7,12,15,16,20,21,25 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☒ Interview Summary (PTO-413) Paper No(s). 8
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Response to Amendment

1. Applicant's amendment was received on 09/09/2003, and has been entered and made of record. Currently, claims 1-28 are pending.

Response to Arguments

2. Applicant's arguments filed 09/09/2003, with respect to claims 1-13, have been fully considered but they are not persuasive.

3. In response to applicant's arguments regarding claims 1,4,8, which was rejected by Suzuki et al, which state that the light emitting elements are not separately controlled, but are controlled by time delays. Upon further view of Suzuki, the examiner finds that Suzuki teaches this limitation in Col 4 Lines 35-50; the light emitting elements are interpreted as being respectively separately controlled. Claim 8 is rejected as being representative of Claims 1 and 4, and hence is rejected for all reasons stated in prior Office Action and present.

4. In response to applicant's arguments regarding claims 9-11,13, which state that Suzuki fails to disclose the optical member for guiding light emitted from each of the plurality of light emitting elements units such that the light is irradiated to the original. Upon further view, the examiner finds that Suzuki teaches this limitation more specifically in Col 5 Lines 1-30. Suzuki focuses light from CCD line sensor 3 onto the original document 1. See also Col 3 Lines 55-68; Col 4 Lines 1-8;Fig 4.

5. Therefore the rejection of Claims 1,4,8-11,13, as cited in the Office Action dated 04/09/2003 is maintained and repeated in this Office Action.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1,4 and 8-11,13-14,16-19,21-24,26-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al (US 4,930,008).

Considering claim 1, Suzuki discloses an image reading device for reading an image while conveying an original on which the image is recorded, comprising: a plurality of light emitting element units 12,13R and 13Y, at each of which a plurality of light emitting elements are arrayed along a first direction which is a direction perpendicular to the original's conveyance direction, said plurality of light emitting element units being linearly disposed along the first direction, and light emission of said plurality of light emitting element units being respectively separately controlled (Col 4 Lines 35-50); an optical member 4 for irradiating light emitted from said plurality of light emitting element units across at least a substantially entire width of the original in the first direction (Col 3 Lines 66-68 and Col 4 Lines 1-8); and photoelectric conversion elements 3 (which include 3a) are disposed in correspondence with said plurality of light emitting element units, receive light that is one of transmitted through and reflected from the image, and conduct photoelectric conversion of the received light (Col 3 Lines 61-66), wherein the image is read while at least one original is conveyed, the original having a width dimension corresponding to a width dimension or one of said plurality of light emitting element units or a combined width dimension of at least two of said plurality of light emitting element units (Col 4 Lines 4-8).

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It is inherent that the optical member be the entire width of the original in order to irradiate light from the plurality of light emitting elements.

Regarding claim 4, Suzuki teaches of an image reading device for reading an image while conveying an original on which the image is recorded, comprising: a plurality of light emitting element units 12,13R, 13Y, at each of which a plurality of light emitting elements are arrayed along a first direction which is a direction perpendicular to the original's conveyance direction, said plurality of light emitting element units being disposed along the first direction, and light emission of said plurality of light emitting element units being respectively separately controlled (Col 4 Lines 35-50); an optical member 4 for guiding light emitted from each of said plurality of light emitting element units such that the light is irradiated to the original (Col 3 Lines 66-68 and Col 4 Lines 1-8); an original carrier 7 for positioning the original at a predetermined position and conveying the original (Col 3 Lines 55-61 and Col 5 Lines 18-30); and a light receiving section 3 (which includes 3a) for receiving light that is one of transmitted through and reflected from the original (Col 3 Lines 61-66).

Claim 8 is representative of Claims 1 and 4 and hence is rejected for the same reasoning.

Regarding claim 9, Suzuki teaches wherein light emission of said plurality of light emitting element units is respectively selectively controlled in accordance with the (number of conveyed) originals which are conveyed in parallel (Col 3 Lines 55-61 and Fig 4).

Considering claim 10, Suzuki teaches wherein light emission of said plurality of light emitting element units is respectively selectively controlled in accordance with the first

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direction dimension of the conveyed original (Col 3 Lines 61-68 and Col 4 Lines 1-8 and Fig 4).

With regard to claim 11, Suzuki teaches wherein said optical member is formed by a plurality of light-guiding members which are provided at positions respectively corresponding to position of said plurality of light emitting element units, and said optical member guides the emitted light to a vicinity of the original and causes the emitted light to be continuous across at least the substantially entire width of the original and to be free of boundary lines (Col 3 Lines 66-68 and Col 4 Lines 1-4).

Considering claim 13, Suzuki teaches wherein light emission of said plurality of light emitting element units is respectively selectively controlled in accordance with the first direction dimension and the number of originals which are conveyed in parallel (Col 3 Lines 55-66 and Fig 4).

Regarding claims 14,19,24, Suzuki teaches wherein said photoelectric conversion elements comprise a three-line charge coupled device (CCD) (Col 5 Lines 18-30).

Considering claims 16,21,26, Suzuki teaches wherein each of said plurality of light emitting element units comprises a LED chip group (Fig 5).

Regarding claims 17,22,27, Suzuki teaches wherein an amount of light output from each of said plurality of light emitting element units separately controlled (Col 4 Lines 35-50).

Regarding claims 18,23,28, Suzuki teaches wherein said light emitting emission is respectively controlled in accordance with a size of the originals and density of said image (Col 4 Lines 4-8; Col 7 Lines 1-37)

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Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al (US 4,930,008) in view of Moriguchi (US 4,490,740).

Suzuki teaches of the image reading device as discussed above in claim 1, but fails to particularly point out wherein said optical member is formed by a plurality of light-guiding members, which are provided at positions respectively corresponding to positions of said plurality of light emitting element units, and said optical member guides the emitted light to be continuous across at least the substantially entire width of the original and to be free of boundary lines.

Moriguchi teaches of a reading device wherein the optical member consist of light guides 13. The light guides 13, optical fibers, are set behind a color filter for passing red (R), blue (B), and green (G) light. The light output from the bundle of 13 is substantially linearly aligned for a length, which is substantially equal to the maximum width of originals used.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine Moriguchi's optical member in the image-reading device of Suzuki. Suzuki's image reading device would easily be modified to include Moriguchi's optical member so the light guides can spread in the form of a sector (position) so that the output ends can confront the platen, as taught by Moriguchi.

Specification

10. Claims 16,21,26 are objected to because of the following informalities: change “an LED chip” to —a LED chip—. Appropriate correction is required.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

12. Claims 1,4,8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The amendment received on 09/09/2003 is in compliance with Examiner's Office Action, 04/09/2003, and telephonic interview, 07/31/2003. However, it is not clearly stated in the specification the control means in which the light emitting elements are controlled. (i.e. Light emitting controller). See Page 17, Second Paragraph; Page 20 Second Paragraph; Page 26 Third Paragraph.

13. Claims 3-5-7,12,15,20,25 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, first paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

14. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

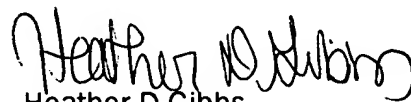
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16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heather D Gibbs whose telephone number is 703-306-4152. The examiner can normally be reached on M-F 8AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on 703-305-4712. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.



Heather D Gibbs
Examiner
Art Unit 2622

hdg



EDWARD COLES
SUPERVISORY PATENT EXAMINER
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